

## **The flight of birds inspires an intelligent system that controls traffic lights to avoid jams**

LOCATION: Málaga.

DURATION: 2'46"

**SUMMARY:** Researchers of the University of Málaga have designed an intelligent system able to control the traffic lights of the city to avoid jams. It is inspired in the movements of birds and it is the first research that counts on the entire traffic lights' network of the whole city. The objective is to reduce traffic jams, pollution and fuel consumption.

### **VTR:**

A flock of birds can be the solution to the annoying traffic jams. Their movements have inspired these researchers of the University of Málaga to design an intelligent system able to control the traffic lights of the whole city to avoid traffic issues.

**ENRIQUE ALBA**  
**Researcher of the University**  
**of Málaga**

*"These movements of flocks of birds, that surprise everybody because of their coordination and the forms they take when they are flying, we introduce this basic idea into a computer program and it finds the optimal configuration of the timing of the city's traffic lights."*

The objective is to count on a network of lights to reduce traffic jams, pollution and fuel consumption.

**JAMAL TOUTOUH**  
**NEO Research Group**

*"Offering the users, the citizens, more efficient traffic lights that will allow us to get to our destinations by car in shorter times."*

Until now, these studies were centered in specific areas with limited lights and hours. Now it is the first time that the whole network of traffic lights is taken into account.

**JOSÉ MANUEL**  
**GARCÍA-NIETO**  
**NEO Research Group**

*"Covering much bigger areas thanks to the simulations we are performing, in contrast with previous studies that covered no more than several crossroads and a few vehicles."*

These researchers are also working on the application of WIFI technology to make traffic lights offer alternatives routes.

**DANIEL H. STOLFI**  
**NEO Research Group**

*"Giving traffic lights, well, many times using the WIFI connection they already have, and this way communicate with vehicles suggesting drivers alternative routes which are personalized for each driver."*

Several cities have already shown interest in the study to apply these results in traffic control centers.

**ENRIQUE ALBA**  
**Researcher of the University**  
**of Málaga**

*"Málaga is pioneer in everything that has to do with Smart cities in the world. There are also some cities in America, South America, in North America that are starting to contact us, this is recent. Also some Europeans as the Czech Republic."*

The next step will be that an enterprise commercializes this system as a software package.

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